




2.1 Reproduction

At the end of this sequence of lessons I can:

			
1. State that reproduction is the method of producing new offspring			
2. State that sexual reproduction involves two parents			
3. State that sexual reproduction leads to variation in offspring			
4. Describe the three main parts of a seed			
5. State the factors that affect germination			
6. State the function of the different parts of the flower			
7. State that in flowering plants the pollen contains the male gamete and the ovule contains the female gamete			
8. State that pollination is the transfer of pollen from the anther to the stigma			

9. State that pollination can be either by wind or insects			
10. State the features of wind pollinated flowers			
11. State the features of insect pollinated flowers			
12. Describe the role of the growth of a pollen tube in fertilisation			
13. Explain seed/fruit formation.			
14. Explain how seeds are dispersed.			
15. State that asexual reproduction involves only one parent			
16. State that asexual reproduction leads to genetically identical offspring known as clones.			

2.2 Growing Plants

At the end of this sequence of lessons I can:

	😊	😐	😞
1. State what is meant by the terms 'asexual' and 'propagation'			
2. Explain that there are two types of asexual reproduction; natural and artificial.			
3. Describe what is meant by the term 'Clone'			

4. Describe vegetative propagation by tubers			
5. Describe vegetative propagation by bulbs			
6. Describe vegetative propagation by plantlets			
7. Describe vegetative propagation by runners			
8. Describe vegetative propagation by offsets			
9. Identify nodes as points of plant growth			
10. Describe and carry out the process of taking a cutting including the use of rooting powder.			
11. Describe and carry out the process of layering			
12. Describe the process of grafting			
13. Explain the advantages to man of artificial propagation in flowering plants.			

2.3 Commercial Use of Plants

At the end of this sequence of lessons I can:

	😊	😐	😞
1. Give examples of ways in which horticulturists can protect growing plants			

2. Give examples of plants used as a food source			
3. Give examples of plants used as raw materials			
4. Give examples of plants grown for medicines			




2.4 Genetic Engineering

At the end of this sequence of lessons I can:

	😊	😐	😞
1. State that certain characteristics are determined by genetic information received from our parents.			
2. State that our genetic information is found in our genes			
3. State that different forms of the same gene are called alleles			
4. State the meaning of the term genotype			
5. State the meaning of the term phenotype.			
6. State the meaning of the terms homozygous and heterozygous.			
7. Identify examples of true breeding, dominant and recessive characteristics from given crosses.			
8. Identify generations as P, F1, F2 from given crosses.			
9. Explain how the sex of a child is determined with reference to X and Y chromosomes.			




2.5 Growth and Development

At the end of this sequence of lessons I can:

			
1. State that seeds require water, oxygen and a suitable temperature to germinate.			
2. State that plants require minerals for healthy growth			
3. State that plants require Nitrogen for healthy growth of leaves.			
4. State that plants require phosphorous for healthy root growth.			
5. State that plants require Potassium for the growth of healthy fruits and flowers.			
6. State the effects of substance abuse on the developing foetus.			
7. Describe the effects of Growth Hormone in the body.			
8. State that a balanced diet is required for healthy growth and development.			
9. State that protein is needed for growth and repair.			
10. State that fats provide energy.			
11. State that carbohydrates provide energy.			
12. State that vitamins and minerals protect the body against deficiency disease.			
13. State that a diet lacking in nutrients will prevent healthy growth and development.			

2.6 Maintaining Body Conditions

At the end of this sequence of lessons I can:

			
1. Define homeostasis as the maintenance of a constant internal environment.			
2. State that the optimum body temperature is 37°C.			
3. State that the hypothalamus monitors body temperature.			
4. Give examples of how the body responds to an increase in internal temperature.			
5. Give examples of how the body responds to a decrease in internal temperature.			
6. State that insulin is a hormone made by the pancreas that converts excess glucose into glycogen.			
7. State that glycogen is stored in the liver.			
8. State that glucagon is a second hormone released by the pancreas to convert glycogen to glucose.			
9. Describe the causes and treatment of Type 1 and Type 2 Diabetes			